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# Performativity and Information Technologies: An inter-organizational perspective

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**Abstract:** The concept of performativity holds that discourses are more than mere representations of external realities. Instead, discourses constitute reality; even a simple speech act is constitutive of “something”. Under certain conditions (“felicity conditions”), the enunciation of a simple word or sentence can create a new social status or a new social condition (i.e. the process of being married or arrested). Discourses related to information technologies, be they organizational or inter-organizational, are thus active elements of what IT is, can do, or can assist with in an organization. Through three case studies of IT trade shows (TS) in France (which focused on the mechanical industry and the domains of logistics and e-commerce), we show that inter-organizational discourses about IT can *perform* IT in very different ways. More specifically, our research illustrates that the various relationships between discourses about IT and the materiality of IT depend on the industry and its culture. IT speech acts are perlocutionary utterances that are reliant on industry-related contexts and their specificities. In continuation with this general thesis, our fieldwork gives way to two key theoretical contributions. Firstly, IT performativity can be exerted at the level of material artifacts, activities, processes or integrative managerial concepts, depending on the industry. Secondly, the felicity conditions of this performativity are largely grounded in a sociodiscursive network (of which TS are key stakeholders) that loosely relies on coupled, inter-organizational networks. In line with these two contributions, we also consider the implications of organizations’ IT purchases, the strategic scanning of IT (i.e. what should be the semantic focus of scanning activities), the understanding of IT fashions and their emergence, and the everyday management of IT in organizations.

**Keywords:** Performativity; IT performativity; materiality; sociomateriality; inter-organizational discourses; IT; trade shows

## **Introduction: IT performativity at an inter-organizational level**

Recently, scholars in organization studies have become increasingly concerned with two tasks: reassembling the social and material dimensions of organizations and their dynamics and investigating the modalities of their entanglements (Orlikowski, 2007; Leonardi and Barley, 2008; Orlikowski and Scott, 2008; Leonardi, 2010). According to Orlikowski (2007, p. 1435), “the [OS] field has traditionally overlooked the ways in which organizing is bound up with the material forms and spaces through which humans act and interact.” In agreement of the work of Latour (2005) and Pickering (1995), among others, management and organization scholars have begun to produce an increasing amount of research that articulates a sociomaterial perspective on organization (Orlikowski, 2007).

Nevertheless, the bulk of this research has favored an intra-organizational perspective. In particular, numerous studies have used practices and discourses (see Iedema, 2007) to contextualize the local dynamics related to IT adoption and adaptation (e.g. Walsham, 1993; Orlikowski, 1992, 2000; Desanctis and Poole, 1994; Walsham and Sahay, 1999), or the way by which IT becomes materialized (Lyytinen, 1985; Auramaki, Lehtinen, and Lyytinen, 1988; Ashcrafta, Kuhn and Coorenc, 2009; Leonardi, 2010<sup>1</sup>). Conversely, we wish to explore IT using a vastly different perspective. We aim at investigating the modalities of the entanglements of IT’s material and social dimensions by focusing on inter-organizational stakeholders and their practices in forums, which lie outside of typical organizational fields.

Our research uses a performativity-based lens (Austin, 1962; Pickering, 1995; Muniesa and Callon, 2009; Muniesa and Callon, 2007) in order to understand the ways by which technology is constituted (and not simply represented) through the discourses of specific stakeholders. This is an important issue for several reasons. Firstly, it is a way to move closer to the re-invention of technology through the course of its diffusion within an industry (Rogers, 1995). Technology is not only a material artifact that circulates within the boundaries of an organization or an organizational field (Ibid), nor is it something that is continuously re-interpreted by actors over the course of its diffusion (namely through controversies, see Pinch and Bijker, 1987). From a performative perspective, technology is

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<sup>1</sup> Namely, through what Leonardi (2010) calls its “practical instantiation”.

also that which is constituted through the social interactions (socio) that integrate and re-constitute its objects (materiality, i.e. sociomateriality) over the course of its diffusion. This point is especially crucial for a digital technology such as IT (Leonardi, 2011), as inter-organizational relationships, ERP, Intranet, CAD, CRM, etc. become “objects” that can aide an organization in achieving its goals. Therefore, understanding the modalities through which IT is performed in inter-organizational discourses can be a way to more thoroughly understand the mutations that IT experiences over the course of its diffusion. This avenue, which is in alignment with this study’s vision of performativity (artifact-related), can enable one to grasp the role of various artifacts in the constitution of IT (leaflets, press articles, websites, interfaces reproduced on documents, printed commercial arguments, demos, gadgets, etc.), as well as the process by which performative discourses are grounded in these artifacts and consequently materialize IT (Leonardi, 2010, based on the Oxford English Dictionary).

We hold that the problem at hand is methodological, and therefore interesting to explore. While it is difficult to understand performative discourses at the organizational level, researchers follow a number of guidelines for where and how they collect data. At the intra-organizational level, we will consider a firm’s juridical structure to be its boundaries. Consequently, we have concentrated on conducting interviews, issuing questionnaires, and more generally, on collecting data from the three trade shows’ participating companies. At the inter-organizational level, the process of IT-sensemaking is produced and reproduced in various locations using a number of different methods. The assumption that the meaning and constitution of IT is simply the result of the sum of the sensemaking activities of each organization within a given industry is quite problematic. Indeed, many actors outside of organizations can intervene in the process (IT publishers, IT consultants, business schools, journalists, etc), and many systemic aspects can similarly influence the process (Swanson and Ramiller, 1997, 2004). The exploration of the elaboration of inter-organizational discourses is thus likely to raise several methodological problems. In this respect, we wish to reveal innovative answers to these problems that grasp the importance of discourse and its material underpinnings.

In continuation to the preceding issues that we have linked to our research question, we aim to analyze a forum where inter-organizational discourses occur, are likely to be produced or reproduced, and where their material underpinnings have a high level of visibility: trade

shows (TS). Trade shows have been widely used as research subjects/objects in History (Moeran, 2011), Marketing (evaluation of the performance of trade shows, see Kerrin and Cron, 1987), and Economical Sociology (TS as frameworks that sustain networks, institutional rules and social norms, see Aspers and Darr, 2011); however, they remain a surprisingly underexplored research object for Management and Organization Studies (MOS). Despite this, trade shows are incredibly relevant in highlighting organizational and inter-organizational dynamics: they gather the main actors of an industry or a service and represent them through various discourses (both spoken or written), diverse formats (LCD screens, web sites, companies' leaflets and booklets, conferences, animations on/in stalls, etc.) and assorted material representations (robots, objects given out as gifts, supply chain models, etc.). The stakeholders of trade shows actually participate in a larger socio-discursive infrastructure – a network of actors that actively influences how IT is perceived by visitors.

Subsequently, our research question can be posed as such: How is IT performed in and by discourses, in particularly inter-organizational discourses? This question can be divided into two sub-questions. Firstly, how is IT represented in the context of trade shows via discourses and material objects? Secondly, how do these representations and discourses participate in transforming IT?

Our methodological perspective follows Nicolini (2009), who invites OS scholars to use a two-leveled approach that is based on “zooming in” and “zooming out” (both terms will be detailed in the next section).

Our research is based on multiple case studies that explore three major IT trade shows in France: the first focused on industry, another specialized in supply chains and logistics, and a third structured around e-commerce. We have applied the same methodological approach to each of these trade shows.

Our main results highlight two theoretical contributions and one methodological contribution.

**Theoretical contribution 1:** All actors are made aware of not only the specificity of the industry, but also of the fact that businesses have a relationship with the discourses and the concepts of materiality that are specific to each respective industry or area of business. Through this, one can cite the differences between separate modes of performativity of IT, e.g. the placement and representation of IT objects on/in stalls, leaflets, magazines, and informal discussions all differ depending on the TS and the industry (or industries) that

correspond to it. Through our grounded case narratives, the performativity of IT discourse appears as an industry-related “ambiance performativity” that is grounded in three sociomaterial and discursive infrastructures: **(i) material artifacts (industry-specific artifacts), (ii) concrete activities and processes or (iii) integrative business concepts.** We consider these infrastructures to be three different modes of IT performativity.

**Theoretical contribution 2:** Our grounded case narratives emphasize that a broad **sociomaterial network** actively participates in generating IT performativity. This network (which is composed of TS organizers, IT publishers, journalists, users’ club, academics, social medias, etc.) reflexively and competitively develops the “felicity conditions” (i.e. conditions favoring Performativity) of IT-related discourses. Additionally, our “zooming out” approach enables us to demonstrate that TS organizers attempt to position their respective TS at the center of this sociomaterial infrastructure. In contrast to the majority of research concerning felicity conditions (which stresses unilateral institutional factors favoring performativity), our study suggests that there may at times be a more “ambient performativity” at work.

**Methodological contribution 1:** This research highlights the richness of TS as an object of research. At the same time and in the same space, TS gather the main actors, rules, objects, discourses and practices that form, as a whole, a sociomaterial infrastructure that supports the felicity conditions of performativity. Conversely, IT performativity largely explains the success of TS.

In this article, we will first develop the notion of performativity and suggest an approach based on “zooming in” and “zooming out” in order to describe IT discourses and materiality. We will then present the research context(s) and how the three case studies differ from one another. Lastly, we will present the findings of our investigations and discuss the limitations of this research.

## **1. Performativity, industry and information technologies: zooming in and out**

Firstly, we will detail and question the various levels at which our analysis of discourses can be located. Then, we will provide a short literature review of performativity that considers

two distinctive visions (linguistic and artifactual performativity). We will then articulate why we focus on the artifactual vision in this study.

### **1.1 IT-related discourses: levels of analysis**

For this research, we have focused on each of the stakeholders that are involved in the IT industry: supply-related actors (IT publishers, consulting corporations, IT manufacturers, IT organizers), demand-related actors (effective or potential customers), more peripheral actors (students, academics and the State), and the forum where all of these actors meet virtually or physically (IT trade shows).

This approach is similar to that of Swanson and Ramiller (1997 and 2004). Swanson and Ramiller's focus is not technology per se, but rather, on IT discourses (at the inter-organizational level). Organizing visions (OV), although reproduced and manipulated locally in each organization, are produced and transformed by a broad inter-organizational community. This community is made of IS employees (CIO, project managers, IT technicians, etc.), consultants (IT, organization, strategy, marketing consultants), journalists, academics (and more broadly, business schools and universities), IT publishers and manufacturers, public servants, and all of the people in and between the organizations that are involved in IT purchases. These stakeholders, via their practices of adoption, invention or adaptations of IT, contribute to the production and transformation of OVs.

Numerous methods for tracing OVs have been offered in the literature (Authors, 2007). These methods are mainly based on lexicometric analyses of practitioners' literature, studies of specific IT concepts through inter-organizational case studies, semi-structured interviews with managers and experts of specific technologies, or combinations of these techniques. Nonetheless, these methods collectively fail to fully investigate the emergence and evolution of IT concepts. In order to conduct a more complete investigation of these subjects, we have focused on everyday practices using an *inter-organizational* perspective. By practices, we mean "the shared routines of behaviors including traditions, norms and procedures for thinking, acting, enduring things" (Whittington, 2006: 619). Following this, "practice-based" views are those that are interested in examining how actors involved in the organizational



process “act and interact with the social and physical features of the context in the everyday activities that constitute practice” (Jarzabkowski, 2003, p. 23). Furthermore, practice is assumed to be the core of the maintenance, reinforcement and transformation of social structures. In particular, practice-based views (along with Giddens’ (1984) structuration theory) are widely used in MIS research (Jones, 1999; Jones and Karsten, 2008): they have been extremely helpful in shedding light on the social aspects of IT that are present *within* organizations or specific IT projects (which are likely to involve external stakeholders).

Through this research, we wish to represent IT performativity by observing practices via the discourses that surround IT and its material representations. Following Nicolini (2009), we seek to explore the practices surrounding IT discourses by using a two-leveled approach that is based on “zooming in” and “zooming out”. Moreover, in order to better explore IT discourses, we draw on the performativity perspective developed by Austin (1962), as well as its extensions into organization theory (e.g. with Muniesa and Callon, 2007, 2009). Research about performativity has suggested that discourses are not simple representations of the world; rather, they are instantiations that *do*, that create the world as they state/say/describe it. In this, the dichotomy between agency and discourse vanishes. A discourse is indeed performative if it contributes to the construction of the reality that it describes. Discourses and material representations of IT are therefore a form of agency; talking is also acting – it constructs through the course of its action.

“Zooming in” is a micro-social perspective. It aims at grasping the grounding of IT discourses in inter-organizational situations such as trade shows. For example, exchanges between actors in stalls, VIP rooms, corridors, alleys, or during conferences are all opportunities to focus on micro-social dynamics.

The process of “zooming out” is more a distinction than an abstraction or systematization. Beyond everyday practices and their descriptions, zooming out requires the understanding of roles, role systems, broader organizational routines, institutions, materiality, and more generally, everything that collectively gives practices enduring properties. Both levels of analysis can be presented in this way (see Table 1 below).

LEVELS OF ANALYSIS	DESCRIPTION
<b>Zooming In</b> (intra-case analysis, more closely associated with practices and discourses)	Sayings and doings, active role of material elements and infrastructure, local methods and micro strategies of concerted accomplishment, body choreography, practical concerns, sense and object of the practice, local repertoire and lexicon of accountability, conditions of legitimacy, sociality and socialization processes, etc.
<b>Zooming Out</b> (inter-case analysis, inter-practices analysis, reconstitution of structures, infrastructures, conceptualization)	Associations between practices and the resulting practice-net, reciprocal implications (how one practice becomes the resource for others), mediators, patterns of associations and interests (practice-net), local and global effects, effects of the global and the local, etc.

**Table 1. The “zooming in” and “zooming out” frameworks proposed by Nicolini (2009: 42)**

### **1.2 The performative dimension of IT-related discourses: between linguistic and artifactual visions of performativity**

In order to explore IT discourses and practices (and to zoom in and out), we will draw on the concept of performativity as developed by Austin (1962) and its extension into social science, as seen in the work of Searle, Derrida or Muniesa and Callon (see Loxley, 2007).

Performativity is a well-established concept of social science. It is based mainly on Austin's 1962 major contribution, *How to Do Things with Words*. From Austin's perspective, discourse is more than a set of words used by an actor to describe the world. Austin points to “the way in which our utterances can be performative: words do something in the world, something that is not just a matter of generating consequences (...)” (Loxley, 2007: 2). In accordance with the pragmatics of language and speech act theory, this suggests that a discourse instantiates the object that it refers to. This is epitomized by the notion of “performative utterances” (Austin, 1970). A “performative utterance” is what Austin calls a “speech-act”. A sentence is a simple statement or description of what people are doing: the sentence actually performs the action. Austin has also put forward the concepts of illocution or illocutionary acts. Essentially,

to perform an illocutionary act is to use a locution with a certain force: it is an act performed *in* saying something, in contrast with a locution, which is the act *of* saying something. Lastly, Austin has suggested a third layer of speech acts: perlocution or perlocutionary acts. In essence, eliciting an answer is the epitome of what the philosopher calls a perlocutionary act – an act performed by saying something. Notice that if one successfully performs a perlocution, one also succeeds in performing both an illocution and a locution. Austin has criticized the use of the notion of employing utterances to simply "describe" or to "take heed of a situation," as well as the idea that an utterance may be true or false. Indeed, some sentences are not particularly open to dispute (e.g. interrogatives or ethical utterances), and Austin defends the opposition between "constative" and "performative" sentences. A performative utterance is not truth-evaluable (i.e. true or false) and is always part of an action simultaneously performed as it is said. As an example, Austin (1962: 5) puts forward the following sentence: "I bet you six pence it will rain tomorrow". He has also distinguished explicitly from inexplicitly performative sentences. In some contexts, the performative power of discourse will require "felicity conditions" (Austin, 1962). For instance, the utterance "I now pronounce you man and wife", which produces the social construct of marriage, is often accompanied by certain artifacts (a white dress, for example) and frequently takes place in a specific, ritualized context (town-hall, church, etc.). This implies that oftentimes, material underpinnings, material mediations or material contexts (embodying an institution) contribute to making speech performative.

Of course, the distinction between performative and constative utterances has been largely questioned by Austin himself (see Austin, 1962 and other critics (see Jakobson, 1985 or Searle, 1989).

In the recent literature related to performativity, the general idea that discourse can be seen as performative (i.e. as constituting the world that it instantiates) has persisted (Sedgwick and Parker, 1995; Loxley, 2007; Muniesa and Callon, 2009). In the study of science (Pickering, 1995), the renewal of gender theory (Butler, 1997), and the analysis of politics (Lloyd, 1999), performativity theory has been used as a way to re-explore discourses.

Callon's work is a paragon of this tendency. He has described the performative aspects of economics (Muniesa, 2011) through a collection of essays titled, "The Laws of the Markets" (Callon, 1998). For Callon, economics cannot be reduced to a simple representation of economic reality. Economic discourses are not simple isomorphisms or isomorphic attempts;

rather, they "realize, provoke, and constitute, at least to a certain extent and under certain conditions" (Muniesa and Callon, 2009: 289). Thus, such discourses "do not simply notice or describe, but modify and call to existence" (Ibid). In this, the key focus is on "the institutive capacities of scientific or technical knowledge and about the types of realities that are brought into existence or modified throughout scientific ventures" (Muniesa, 2011: 12).

In continuation of this vision of performativity, Muniesa and Callon (2009) have contrasted four types of performative utterances:

- "Theoretical" vs. "experimental": "The former defines configurations in which the main stake lay in building a world derived from a theory, i.e. to verse on the world a set of problems and solutions first expressed in an abstract manner on the basis of a theoretical corpus." The latter corresponds to a world that is "linked to design contexts in which the situation starts from problems and problematic situations in order to elaborate progressively models, measures and economics instruments" (Ibid: 300).

- "Psychogeneous" vs. "material": In economics, psychogeneous performativity relates mainly to the psychic experiences of scholars (e.g. the famous "thought experiments") or practitioners (e.g. electronic markets simulated in specific experimental rooms by a group of participants). These experiences manifest themselves in the form of "reasoning, convictions, but also favorite tropes" (Ibid). Material performativity, on the other hand, relies more on the set of techniques and tools that drive and imply a way of doing things (e.g. the use of multi-agent systems in economics), and are thus mainly a question of material agency.

- "Distributed" vs. "planned" (Ibid: 300): This third distinction deals more with the vehicles of performativity, which can be either spontaneous or planned.

- "Restricted" vs. "generalized": "restricted performativity can be defined by the high level of closure of the site of performativity and control of what happens. Felicity conditions rely more clearly on rules and usages proper to scientific communities themselves. Conversely, in generalized performativity situations the list of actors and objects produced or affected is more open, the level of uncertainty about felicity conditions is higher and questions of democracy look more urgent."

Through this literature review about performativity, we can identify two complementary viewpoints: the linguistic vision of performativity (e.g. in line with Austin, 1962 and Searle,

1989), which discusses language and its performative power; and the artifactual vision of performativity (e.g. in the work of Pickering, 1995 and Muniesa and Callon, 2009 or Beunza et al. 1996) which combines the performativity of language with its material underpinnings (the mathematical model, the information system of the financial markets, the managerial technique materializing a managerial discourse, etc.). For this present research, we will adopt the artifactual vision of performativity (specifically that of Muniesa and Callon). This can also be related to the more general issue of the materialization of IT. Indeed, discourses about IT are also instantiations of IT, and in the sense of a practical instantiation, materializations of it.<sup>2</sup> In contrast to Muniesa and Callon (2009) our aim here is to explore the performativity *of* IT more than the performativity *through* IT (or any other material artifacts).

According to Leonardi (2010), “whatever the reason, it seems true that organizational researchers have largely overlooked artifacts — physical and material — and continue to miss their importance in the organizing process.” If some scholars are reluctant to investigate the so-called “physical world”, defining “materiality” as a substance only widens the gap. IT trade shows and their participants are both producers of discourses. Trade shows are not only places that present an up-to-date picture of the IT market – they are also places where the IT market is constituted through the production of discourses about its objects, actors and tendencies. In essence, a trade show embodies the market and its technologies.

Trade shows are therefore vast systems that combine objects, discourses and practices, and consequently allow us to study the way that markets and technologies are performed by trade shows themselves, IT’s stakeholders, and subsequently, by the material relationships between the everyday objects that are manipulated within the industry.

By employing of the processes of zooming in and zooming out, our research highlights the need to contextualize the performative nature of IT related discourses within the industry (defined as the broad process of production of products/services and supply and demand), and within the industrial culture of trade shows’ stakeholders. This has implications for IT management (particularly those involved in the process of IT purchasing), the strategic scanning of IT, and for the study of IT-related discourses.

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<sup>2</sup> On the one hand, ITs are highly immaterial. They are softwares, sets of codes, and concepts that are particularly difficult to grasp (and invisible) for end-users. This makes the use of performative descriptions all the more important in helping organizational stakeholders to appropriate the technology. On the other hand, ITs are co-substantial to material artifacts, i.e. the hardware and bodies that make their physical presence obvious.

## 2. Research methodology: An interpretive case-study of three IT trade shows in France

Firstly, we will introduce the general design of our research, which is based on three interpretive case studies. We will then detail the way by which we collected and analyzed our data.

### *2.1 General research design: an interpretive perspective of three trade-shows case studies*

For this project, we relied on an interpretive case-study approach (Walsham, 1995), which focuses on in-depth investigations of actors' interactions and interpretations. Our research design was aimed at not only grasping IT-related discourses as they developed during three specific trade shows, but also at capturing the material underpinnings and material settings of these discourses (this approach is in agreement with Muniesa and Callon's 2009 approach to experimental economics). The material setting of the trade shows – stands, VIP rooms, leaflets, urbanisms if the trade shows, dress codes, etc. – were at the core of our research.

In order to fully realize these analyses, we relied on a multi-data collection approach in developing our case narrative, i.e. we relied on observations (systematically recorded in observation checklists), semi-structured interviews, questionnaires, documents and photos.

We collected both secondary (journals, leaflets, directories, etc.) and primary data (semi-structured interviews, pictures, observations formalized through checklists, etc.). A team of four researchers collected an extensive set of data about each trade show, which included interviews, written media, photographs, physical attendance to conferences, and informal conversations in stalls. The variety of these data sources helped us to gain an overall understanding of the everyday discourses related to IT buzzwords.

The three IT trade shows that we investigated (more specifically their sections dedicated to IT) were:

- **Case A (March 2009; Lyon, France):** This industrial trade show targeted the SMF of the machine-tool and robotics industry. It included an IT section mainly offering CAD and CAM technologies.
- **Case B (March 2010; Paris, France):** This trade show concentrated on logistics and transport, and was more service-oriented than Case A. The event included a major IT section focusing on logistic-oriented Information Systems.
- **Case C (September 2010; Paris, France):** This e-commerce-oriented TS mainly included e-business platforms for logistics, order fulfillment, and marketing.

Interestingly, each TS corresponds to a specific phase or a broad macro-process. Where TS A was devoted to the design and production of artifacts, TS C focused on their commercialization, and TS B concentrated on their initial (for B to B activities) and final transport (for B to C activities).

The feature of each case can be summarized the following way:

	CASE A	CASE B	CASE C
<b>Type of trade show</b>	Industry: machine-tool and robotics. Study focused on the IT section of the TS. Place of “innovative technologies”.	TS for transport and logistics industries. Focus on the “technology and IS” and “RFID” section.	E-commerce oriented. Study focused on the entire TS.  TS exhibits: “the last technologies for on-line shopping, mobile technologies, e-marketing till the delivery of products.”
<b>Key data</b>	In 2010 <sup>3</sup> : Set up in 2005 (alternating between Lyon and Paris) Surface: 50 000 m <sup>2</sup> 800 exhibitors 10 industries 20 000 visitors	In 2010: Set up 30 years ago Visited by 27 000 practitioners 500 exhibitors 27 500 m <sup>2</sup> surface area 30 cycles of conferences and workshops 6 awards for innovation in logistics 70 medias 250 journalists	In 2010: Set up in 1995 in Paris 550 exhibitors coordinating 350 conferences and training. “It has become the first meeting for e-commerce in Europe” 30 000 visitors “e-merchants”
<b>Context</b>	Visitors are mainly small and middle-sized firms. Average profile of individual visitors: CIOs of very small structures, chairmen of SMF, jobseekers, students in the techniques represented by TS A. The TS takes place in March 2009. Crisis is still heavily present in the minds of actors (and in numerous issues of journals distributed at the entrance of the TS).	Targets the logistic and transport industry. Visitors are SMF and major companies. Individual profile of visitors: chairmen, purchase managers, logistics managers, students. Crisis is still present, but more implicitly (through discussions with exhibitors).	Targets the e-commerce industry very broadly. Average individual profile of visitors: e-business managers, future founders of e-business companies, salesmen/women, marketing directors, consultants, students. Crisis is not particularly evoked at the TS (explicitly or implicitly).

• Table 2. Comparison of our three cases (A, B and C)

<sup>3</sup> In order to enable comparison, only statistics from 2010 are considered here.



The trade shows differ according to their profiles: the percentage of firms for which IT is considered to be their core business (increasing from case A to case C), types of IT activities, and thus types of IT presented.

	CASE A	CASE B	CASE C
Number of exhibitors	1000	3549	3000
% of firms for which IT is considered to be their core business (spatial position in the TS)	10%	31,2% (1109)	96,8% (2906)
Types of IT activities	Industrial Information Technology CAD/CAM Software Technical documentation management software Production monitoring software Supervision software Maintenance management software Quality management software Enterprise Resource Planning (ERP) Rapid prototyping Material	Freight exchange, EDI, software publishers and engineering companies, geolocalisation, printers, labels, EDP, RFIID, services and consulting, SCM, DCS, DTS, technologies for safety, traceability	Digital marketing, E-commerce technologies
Types of IT used	ERP – CAD - CAM	EDI, DCS, DTS, geolocalisation, EDP, RFIID, ERP, Internet	RFiD, EDI, open source e-commerce, CRM, e-business, e-reputation, social networks, PCI DSS, e-learning, ASP SaaS, m-commerce, VoIP, Internet, websites, tracking, e-mailing, scoring, affiliation, e-payment, API, workflow, mixed reality

- **Table 3. Profiles of IT trade shows from exhibitors' perspectives.**

## ***2.2 Data collection***

Our analysis relied on three case studies (see Appendices 1, 2 and 3), and a common data collection for all cases.

The first case study (A) took place in March 2009 in Lyon (France). Four senior researchers and a research assistant were involved in data collection.

The second case study took place in March 2010. Three researchers and a research engineer were involved in data collection.



The third and last case study took place in September 2010. Three researchers and a research engineer were involved in data collection.

For cases A, B and C, we collected data using both quantitative with qualitative methods. All data collected and the research techniques implemented for data collection are summarized in the following table:

	<b>CASE A March 2009</b>	<b>CASE B March 2010</b>	<b>CASE C September 2010</b>
<b>Qualitative data</b>	15 semi-structured interviews Observations of visitors and exhibitors (formalized by means of observation checklists) Exhibitors' leaflets Pictures (45) Reviews, journals and directory distributed at the entrance of the TS	14 semi-structured interviews Observations of visitors and exhibitors (formalized by means of observation checklists) Exhibitors' leaflets Pictures (70) Reviews, journals and directory distributed at the entrance of the TS	13 semi-structured interviews Observation of visitors and exhibitors (formalized by means of observation checklists) Exhibitors' leaflets Pictures (92) Reviews, journals and directory distributed at the entrance of the TS
<b>Quantitative data</b>	Questionnaire submitted to visitors about IT purchase and IT products	Questionnaire submitted to visitors about IT purchase and IT products	No quantitative data for Case C

• **Table 4: Data collection for Cases A, B and C.**

In conducting our semi-structured interviews, we relied on two different interview guidelines: one for the organizer of the trade shows and a second for the exhibitors.

The interview framework used for the organizers concentrates on the following topics: the history of the TS, its objectives, the organization and advertising of the TS, the profile of participants, its partnerships, the specificity of the industry/sector/theme of the TS, other events organized by the organizer of the TS, orientations of the TS, what is next for the TS, and what constitutes a successful TS.

The interview framework used for the exhibitors concentrates on the following topics: the frequency of participation in the TS, other TS that the company participates in, company expectations, the means that were invested to build the stall, what constitutes a successful TS, level of satisfaction, suggestions for improvements for the TS organizer, the profile of visitors and their objectives, the level of maturity of the questions of the visitors (Do they have concrete plans when they arrive at the stall? Do they know the products and services offered? Are they willing to buy something?), and how visitor-databases are exploited after the TS.

In addition to these interviewing frameworks, we employed an observation grid that covered the following issues: the typical trajectories of visitors, their dress codes, the behavior of visitors when approaching stalls, visitors' frequently asked questions, exhibitors' frequently asked questions, buzzwords appearing in visitor/exhibitor discussions, peak hours, and the interest of visitors in the documentation found in the stalls.

## ***2.3 Data treatment***

The data has been treated in a number of different ways.

Firstly, semi-structured interviews were recorded and coded by means of a thematic dictionary (Miles and Huberman, 2002), which helped us to isolate and categorize discourses about IT and their meanings. In doing this, we sought to observe in particular how technology was materialized in commercial discourses and managed through material settings.

In order to deepen our understanding of the meaning of the technologies offered by exhibitors, we also applied a lexicometric analysis. Through this, we identified occurrences and co-occurrences of buzzwords. This was interesting in contextualizing the focus of authorized discourses for cases A, B and C. We used these results in order to grasp the potential global and transversal markets of organizing visions.

Documents (leaflets) were also the object of a thematic coding. A random sample of 10 leaflets was coded for each TS. The coding covered the following dimensions:

- Graphical dominance (figurative, symbolic or mixed);
- Presence of industry-related objects (yes/no);
- Types of objects represented (material objects, processes or activities, stylized managerial forms, others);
- Human presence on the document (yes/no);
- Representation of the software or a part of the software (yes/no);
- General orientation of the text (general slogans, evocations of technical contexts, general evocations of products).

Conference transcriptions were not coded, but were thoroughly read several times.

Pictures were not systematically treated. We simply made a selection of broad or focused pictures that were likely to illustrate parts of our zooming in and zooming out process. We selected pictures that were representative of the atmosphere of each of the three cases.

Thus, in continuation of Nicolini's stance (see p 7), we used our data in the following way:

Level of analysis	Research objectives	Data collection	Data treatment
<b>Zooming In</b> (intra-case analysis, more closely associated with practices and discourses)	Identification of discourses, practices and objects implemented by OV's stakeholders.	Semi-structured interviews	Verbatim Descriptive analysis of each interview Pivot analysis - frequencies
		Research notes and close pictures	
<b>Zooming Out</b> (inter-case analysis, inter-practices analysis, reconstitution of structures, infrastructures, conceptualization)	Modeling of a network, an infrastructure which related discourses, practices and objects. More generally, conceptualization of a relationship with materiality specific to industry.	Superposition and combination of the key results.  Aggregation and consolidation of key results. Pictures using zooming out, general pictures of the TS General analysis of documents.	Inter-case comparison Thematic and lexicometric treatment of the all set of interviews. Comparative thematic analysis of all leaflets.

• **Table 5: Zooming in versus zooming out and data collection**

### 3. Results: Industry and industry-specific culture at the core of performativity

Firstly, we will detail the key contents of the discourses that we observed at TS A, B and C. Then, we will investigate the material underpinnings of these discourses and the ways by which they became performative (i.e. constitutive) of the complex technologies they explore and often, that they question.

#### 3.1 Key contents and focus of discourses for each TS

##### 3.1.1. Key results from the lexicographic analysis of discourses

Each of the three cases corresponds to a set of specific IT discourses (see Appendix 1 for a description of the contexts of TS A, B and C). These discourses are illuminated by the following table, which condenses our lexicometric treatments and interpretations:

Cases	A	B	C
Technical keywords appearing in the technical categories of our semi-structured interviews (i.e. number of occurrences in the "IT object" section	CAD (27), CAM (18), software (12), MPM (11), 3D (9), CAM(7), ERP (5), interface (3), CAD (2), CAD (1), CRM (1),	RFID (29), System (19), Chip (11), WMS (10), ERP (10), Net (9), Code-bar-code (7), Reader (7)	E-commerce (3) Commerce Server (3) Solution (5) Interfaces (3) Software of the market (3)

and of our coding)			Microsoft (3) Human Machine Interaction (2) Software (2) Flow Management (1) Content management (1) Open Source (2)
Keywords appearing in the title of issues distributed at the entrance of the TS	Same keywords with valorizing expressions, e.g. “V20 news and improvements. Work N-THE CFAO solution, from 2 to 5 axis automatically”, “AGOS vision: the ERP which makes your company evolve”, “Make the choice of an ERP designed by and for industrial companies”, , or “Delcam, the full CFAO solution”. Metallic objects, spare-parts and machine-tools are often represented on the cover of leaflets.	Same vocabulary with some extra-concepts, e.g. urban logistic, planning software (APS). Also, valorization of a concept seldom cited in our interviews: augmented reality.	E-commerce, e-business, CRM, e-reputation, social networks, PCI DSS, e-learning, ASP SAAS, open source, VOIP TTOIP, e-commerce But generally, technical vocabulary is seldom. We mainly find managerial concepts such as “business models” (in articles but also conferences, e.g. Price minister TM conference). IT products or services aim at inserting and sustaining customer’s company business model.
Interpretations and remarks	Outside the sections related to technology (where we applied our lexicometric analysis), domination of a production centered vocabulary and most of all, objects-oriented (more than process or activity-oriented). Machines, tools, maintenance, drawings, workshops, etc. are extensively represented. This phenomenon was more present in case A than B and C. Technical artifacts are obviously more present (visually and textually).	Outside sections devoted to IT (on which we have completed a lexicometric analysis), valorization of a vocabulary widely linked to logistic jobs and elements of logistical processes, activities (shops, product, traceability, transport, cardboard, hangtags, merchandises, plat-forms, fabricators, etc.).	We are in a B2B environment that looks like a B2C environment, namely because of the efforts of exhibitors for pedagogy and entertainment. Numerous discourses seem to target directly end-customers (in spite of their absence to this TS). The vocabulary is more managerial (even strategic) than for cases B and C. It is also more diversified (around marketing, financial, productive or logistic logics).

• **Table 6. TS comparison via dominant buzzwords**

Without any claims related to sectorial representation (we relied on the semi-structured observations of particular stakeholders and their discursive practices), these results are interesting in that they position/contextualize each TS and raise a number of exploratory questions about the specificity of the mode of performativity of IT in each respective industry.

Most of the documents that were available at TS A, B and C (both from their organizers and exhibitors) appeared to be deliberately performative.

According to Muniesa:

Discussions on performativity often struggle with the problem of description. The problem, more precisely, is distinguishing between two types of situations. On the one hand, you may have statements, methods, texts and other apparatuses that are meant to describe a reality that is exterior to them, that is, to report on an external state of affairs, to record or to transcribe something either in a very realistic manner or in an approximate, stylized or perhaps abstracted way, but to refer to an already existing thing or to something that does not exist in reality (it can be a future project, or an hypothesis, or just an idea) but which is supposed to be external to the description. The description is, of course, not the same as the described thing (there are transformations going on) but there is a thing indeed (and one can describe a fictitious thing but a fictitious thing, as its name indicates, is a thing). On the other hand you may have statements, methods, texts and other apparatuses which are meant not to explicitly be descriptions, but are meant rather to instantiate, or to effectuate, their own reference: they are proposals, instructions for an artifact, dramaturgical performances, institutional declarations, expressions of oneself, 'mots d'ordre' and so forth. These too are descriptions in a way, one might argue, but what they describe is not external to them (or at least not completely), and they fall, quite easily, into the realm of the performative. (2011: 17)

Here, we can categorize trade shows using Muniesa's second scenario: most documents (both for cases A, B and C) were aimed at giving technology a shape, a function or an added value through very convincing methods.

Our analysis of leaflets thus leads to a series of convergent conclusions. The three TS visualize software and their links with materiality (namely with businesses) very differently. The analysis contains six different criteria: diagrammatical orientation, type of objects represented, partial or total representation of the software, human presence in the document, general orientation of the text, and presence of objects related to business.

TS A is thus much more figurative than TS B or C. Is this fact related to a need for concrete objects, or to a need for comprehensive discourses with regards to everyday work situations, which are eventually highly material in nature (machine-tool or robotics-oriented SMF)?

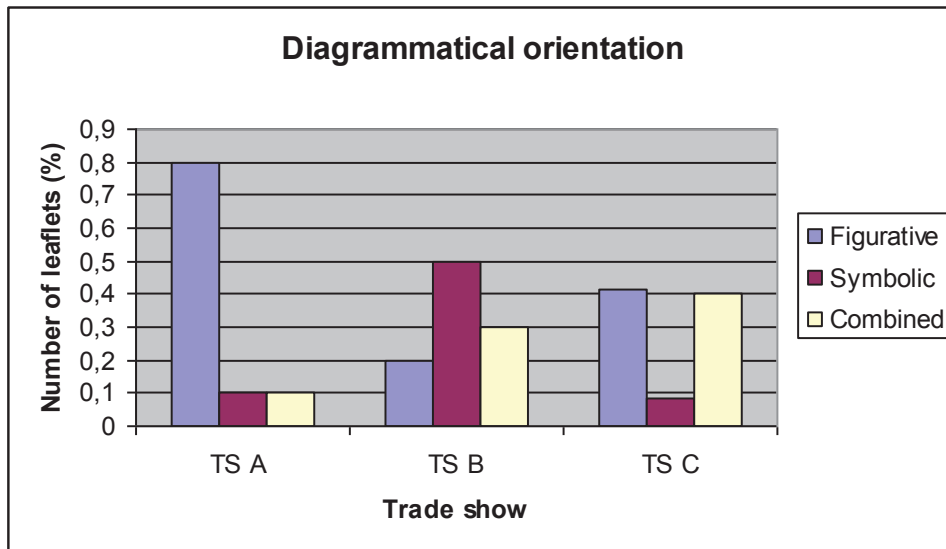


Diagram 1: Diagrammatical orientation

Likewise, material artifacts are represented throughout the leaflets from TS A. Conversely, TS B insisted more on process or activity-based representations, with arrows or other representations abstractly representing the moving, dynamic firms. The case of TS C is also interesting: it corresponds to a mix of objects' representations (e.g. related to sales or logistical activities) and processes. The entire apparatus is often integrated into what implicitly or explicitly appears to be a business model. Here, we discovered that the representations were very often strategic.

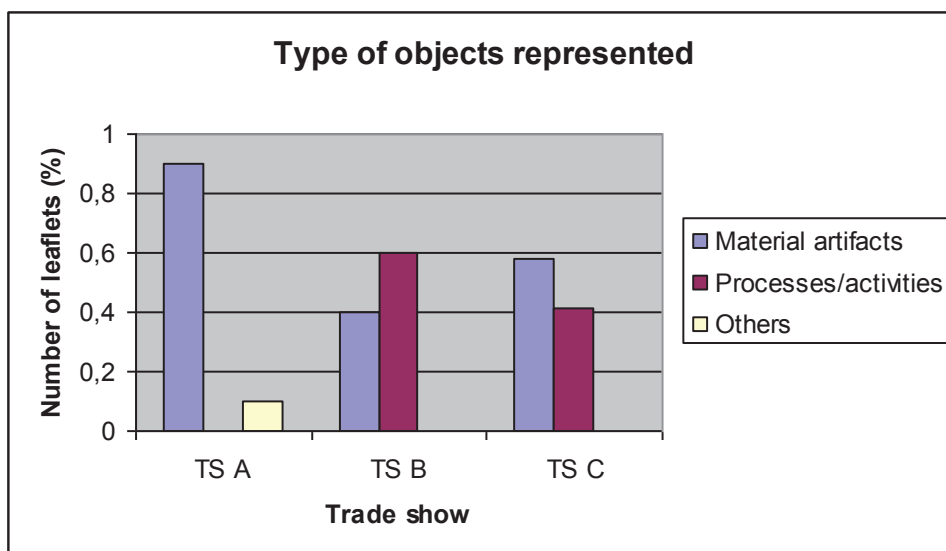


Diagram 2: Type of objects represented

The presence of software was at it highest (with more or less stylized print screens) in the case where materiality was less present – TS C. However, is this altogether surprising? Instead, the software is introduced through background abstractions (“business model”, “strategy”, “business”, “management”, etc.), which in turn enable firms to integrate their activities.

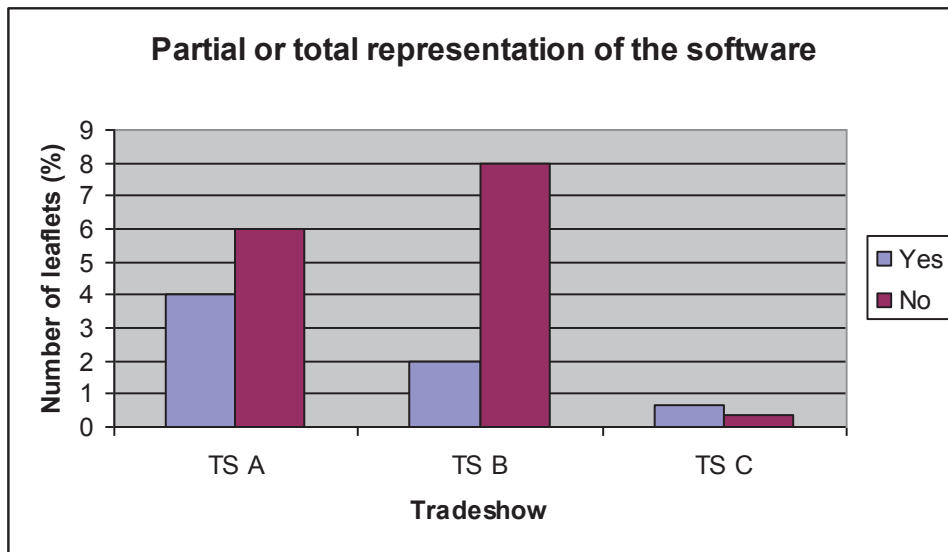


Diagram3: Partial or total representation of the software

Human representations were similar in trade shows A and B; however, TC C saw a smaller number of such representations due to its reliance of abstraction.

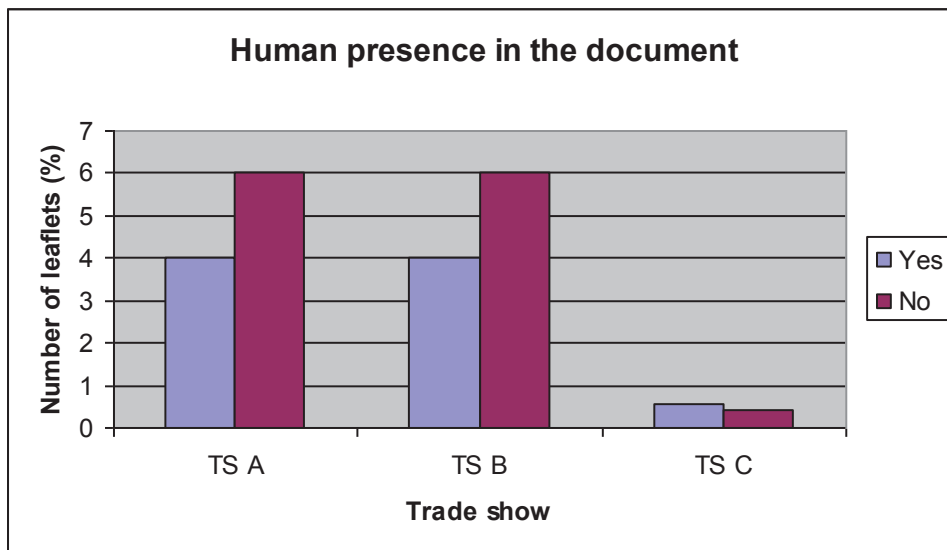


Diagram 4 : Human presence in the document

Another interesting point is the general target of the leaflets. While TS A's leaflets focused more heavily on slogans (which were generally grounded into the industry's discourse), TS B and C dealt with more precise technical concepts.

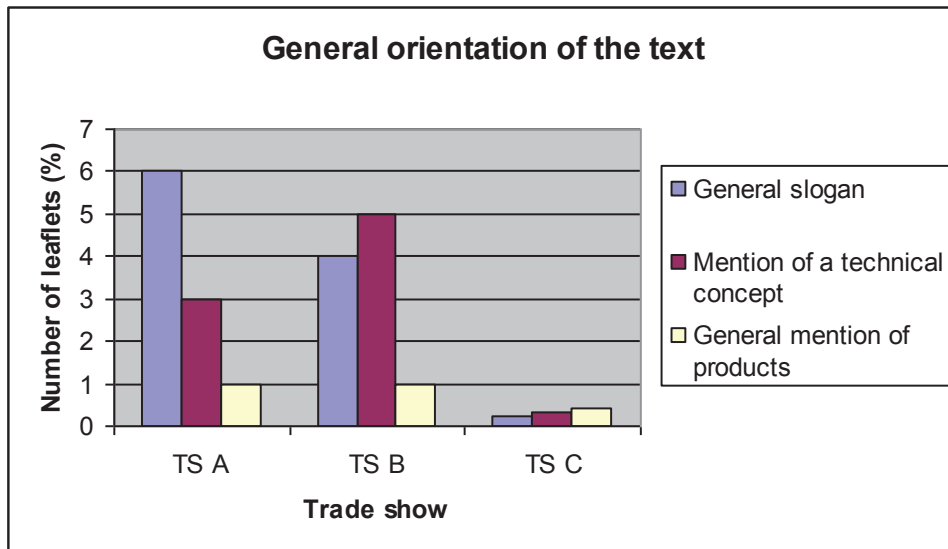


Diagram 5 : General orientation of the text

Lastly, the presence of objects in relation to the business and the industry was amplified in TS A (via machines, spare parts, gearings and robots) and TS C (via logistic platforms and objects linked to internal and external logistics). Conversely, TS B offered abstractions about its processes and activities, which tended to conceal the objects grounded in the business.

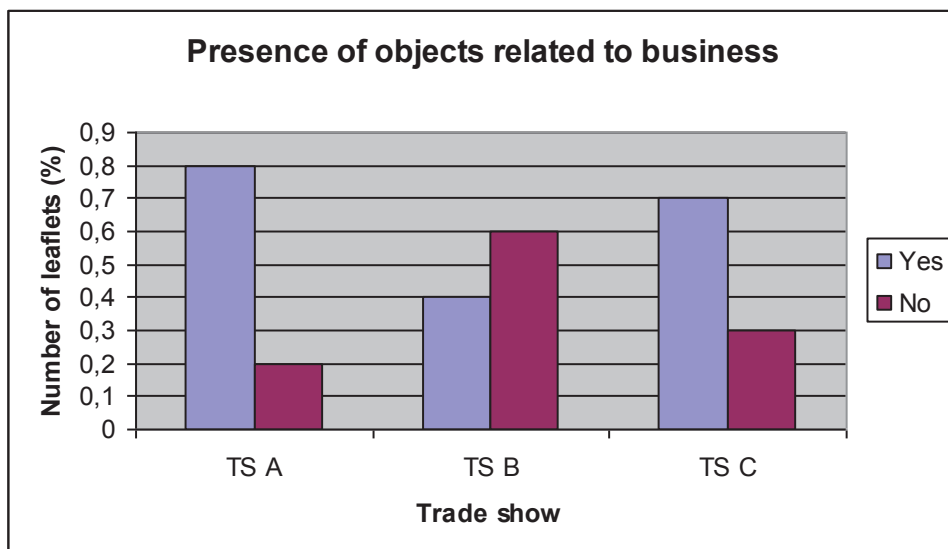


Diagram 6: Presence of objects related to business

Collectively, these analyses reveal that IT discourses tend to be associated with experimental performativity: IT is sold through the presence of objects that are related to business or business situations, and often carry with them a human presence. Moreover, software is not represented on the leaflets that are designed to sell it.

Moreover, observation grids and our analyses of interviews reveal the conventions and the implicit rules for speaking about IT products. It seems that TS is a space where restricted



performativity takes place. In order to understand IT discourses, visitors need to be in the same business and faced with the same challenges. Finally, material performativity is expressed through TS (see the number of objects on leaflets, for example).

**3.1.2. Photographic descriptions**

In an effort to build on our first, more general analysis of the trade shows’ leaflets and journals, we will now analyze the pictures that we took during the three TS (see table below):

Case A	Case B	Case C
		

• Table 7. Six photographs, three trade shows, three different atmospheres

These photographs, as well as the majority of ones not displayed, illustrate the key differences between each TS. While machines and robots dominated TS A (the photographs cannot convey the level of noise that was present in this TS), visual and demos on screens, in particular LCD screens, were prevalent in TS B and C. In short, B and C contained more managerial concepts than products or services.

TS B contained stands of transporters, some of them particularly massive; TS C was less impressive. The population and nature of the public of each trade show was also clearly different, as evidenced by our photographs. The assumed dress code for men (the audience was very male-oriented) at TS A was much more casual in contrast to TS B and C. Furthermore, TS C had another surprising particularity: the presence of people (mainly hostesses, see the picture in Table 5) disguised and distributing flyers or leaflets at the entrance of the TS. Small stands were more numerous and often oriented towards high tech, innovative communication. The entire environment of TS C was more entertaining and much more ludic than both TS A and TS B.<sup>4</sup>

Our photographs of the VIP rooms of TS A, B and C were also very interesting. In contrast to the sober environment of A, the VIP rooms of B and C were more luxurious and sophisticated (C even included a two-parted distribution of space – a VIP area and a *super* VIP area...).

We will now move beyond these general, contextual characterizations by means of zooming in and out; in doing so, we will reveal the performativity and discursive modes of performativity for each TS.

### ***3.2. From the socio-discursive infrastructures of TS A, B and C to that of the industry***

In the previous section, we discussed the context of each TS. In this new section, we will seek to thoroughly understand how IT is performed in each TS, as well as how discursive practices materially and socially constitute technology. In exploring these issues, we will zoom in and zoom out on our three research objects in order to capture the socio-discursive infrastructure that lies behind the production of authorized IT discourses.

As we will see, it seems that the industries that correspond to each TS also correspond to specific modes of performativity and relationships with the materiality of technology.

#### **3.2.1. The co-construction of technology and technological markets in the context of TS (zooming in)**

In each trade show, artifacts were manifested in different ways. Similarly, as we stated in the previous section, the discourses in the leaflets were of particular interest.

At trade shows, IT is not only displayed and demonstrated (via LCD screens, leaflets, articles, etc.)– it is also spoken (on stands and during numerous conferences). For many actors (in particular those at TS A), the decision to buy or not buy a technology is related to a strict hierarchical system. CIOs have no budgetary autonomy, and therefore often come to TS with pre-conceived ideas about what they want. In doing so, they look for effective arguments to convince their “boss” (who is more or less receptive to IT investments), i.e. they come both to

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<sup>4</sup> I.e. the way it is presented, not the content of messages.

be convinced and find ways to convince. These CIOs are in a way “disguised commercial prescriptions”! The TS is therefore a market for purchasing arguments, be they written or oral.

Slogans such as “doing CAD like speaking” are convincing (but surprising) arguments for non-technicians.

One can observe the differences between the three TS through the observation of the status of IT in each. In case A, IT automates industrial activities but is not a central dimension of the product or service; rather, it is incorporated in the industrial objects that are not explicitly visible for visitors. In case B, IT supports the core supply chain processes and is incorporated into software; it is partly visible through objects (RFiD labels for instance) and discourses. In case C, IT supports the core business and is incorporated in various objects and software; it is visible to customers and appears as a central component of the product or service offered.

	CASE A	CASE B	CASE C
<b>Presence of IT in the activities of the TS</b>	IT supports industrial activities	IT supports the core supply chain processes	IT supports the core business
<b>Form of IT materiality</b>	Incorporated into objects (robots, embarked data processing)	Incorporated into software	Incorporated in the objects and software that belong to the core business
<b>Level of visibility of IT in the stands</b>	Not visible	Partly visible	Completely visible
<b>IT role in the core business</b>	IT automates objects that contribute to the core business	IT supports logistics service (traceability, identification.)	IT is essential to the core business
<b>Materialization of technology in discourses</b>	<b>Technology is materialized in, around and with the objects (metallic matters, typical of the industry) that are at the heart of the industry:</b> machine-tools, gearings and spare parts. Actors’ discourses that push technology need to be materialized (cf. the visit of some SME people with heavy spare parts to model instead of simple measures on a piece of paper. Discourses (in particular commercial ones) disappear behind demos.	<b>Technology needs to be embodied in processes and/or activities.</b> This sometimes implies an abstraction or an idealization of technology (which will be discussed or represented directly at the level of flows), but not necessarily.	<b>Technology is co-substantial to broader managerial concepts that contain some degree of abstraction.</b> Technology is at the service of tangible effects (economic, strategic, marketing, etc.). Discourses on paper or face-to-face need to strengthen these effects (through visualization).  Technology is an element of a business model; it needs to be explained or popularized.  It can become a mere buzzword (more in the case of TS A and B).

\* Table 8. IT materiality in the three cases

The socio-discursive infrastructure of TS (i.e. the stakeholders to each TS and their shared language) can then be seen as an opportunity (and a felicity condition) for quickly making sales in a synchronic manner, and directly or indirectly via the use of discourses that are more or less embodied to keep their mobility. This infrastructure relies on numerous objects that enable it to consolidate commercial strategy and to serenely construct IT discourses.

Over the course of our interviews and during our observations, we discovered certain objects that were aimed at initiating discussion (candies<sup>5</sup>, leaflets, LCD screens, smiling faces, etc.) and others aimed at closing the (environment of) discussion (tables, appetizers, electronic networks, etc.). This was done in order to create discussions with actors while at the same time partially cutting them off from their direct surroundings.

Certain materialized discourses (in catalogues, electronic networks, etc.) are sometimes employed with lofty goals in mind: their users seek to embody the location within which both the supply and demand of technology meet. The goal is therefore to control the map that represents the territory. This is clear in the case of a TS e-business directory, which was produced by the organizer of the e-business trade show. The goal of this directory consisted of an attempt to find a centrality in the market, i.e. becoming “the place where things happen,” and positing other forums as merely poor copies/replications. This likely implied the dense development of social networks in and around the TS. Visitors, as well as exhibitors, need to have the impression that they are being connected to a true sociological hub.

### **3.2.2 The socio-discursive infrastructure of technology (comparative analysis, zooming out)**

These three cases enabled us to step back and to innovatively conceptualize the discourses and the degree of material and discursive grounding that could be found in each TS. Behind each TS, there is a vast socio-discursive infrastructure<sup>6</sup> (defining roles, prerogatives, legitimate trajectories of everybody) that we believe can be linked to specific industries, industrial histories and industrial cultures. **This sociodiscursive network (which has a partial visibility at TS A, B and C) is a key component of the felicity conditions described by Austin (1962):** it defines what instantiates a technological buzzword or slogan as it is pronounced.

In relation to this, our interviews and observations held striking contrasts.

For TS A, the set of discourses was strongly linked to the material setting on the TS, as well as to the (noisy) objects of the business. Every time one needed to convince a potential customer (or interviewer, etc.) of a software’s capabilities, they employed concrete observations, which themselves point to the physical performance of the firm (“We model 3D spare parts using only one person...there is no need to have a department dedicated to research”, the company Omega stated).

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<sup>5</sup> Cited six times in case A interviews.

<sup>6</sup> Facilitated and constituted by a high level of turnover of salesmen.

TS B's atmosphere was much more welcoming. Numerous billboards and leaflets on stands modeled more abstract services. Processes and logistical activities, often inter-organizational, were schematized. Sometimes, these activities were made even more concrete through videos that continuously presented the dynamic processes of a firm (and showing the manipulation and transport of products). The chief aim of the software was to "trace the trajectory of products," and to thus offer an abstraction likely to manage physical and information-related flows charts: performance was shown from flows charts and through the representation of flows charts.

TS C exhibited software using a point of view that was at once more abstract and more concrete. It was more abstract in the sense that notions such as "business", "business model", "organization", "eco-systems", etc. were at the core of numerous interviews and documents. Technology (which also appeared as being an object, but as contained within a business model) had a more managerial effect, which needed to be grasped by crossing various indicators, such as technical, economic, human and strategic logics. The customers of TS C were is more "present" than in the other two cases.

Our interview with Exhibitor C12 was the epitome of this. Focused on giving supermarkets added value, a strong business model was employed to argue for the adoption of an IT:

"Indeed, we are a company that equipped the first supermarket and the first e-business company in the area of retail e-business. This is X [a major supermarket group]: they are the industry leader in France. They are the first company that said 'Let's go on the web!', and they are still convinced of the shrewdness of that choice – we have accompanied them for 20 years now. Today, this company continues to effectively manage these elements while expanding its business model. Now, it has moved on to drive solutions, e.g. warehouse solutions. But this, this is control: it starts with a filling process requiring very few means, and is able to productively prepare orders. Subsequently, it equipped itself with a new internal fleet because it desired better logistical control. Finally, it managed to control...that's all. Now, it is again moving on to another business model; it still implements the first one, but it is evolving. This is the way we control a business...but it took 10 years. It's not been an easy thing to do!

This is also the case when the point is to show the potential added values of an emerging concept. We are then at the heart of our subject, with e-tailing: (exhibitor C12) : "We do not want to simply do e-business in a broad sense; we would like to narrow the scope of our business. Thus, this e-business, but a special part of it (e-tailing), is an emergent concept (...) that revolutionizes everything: marketing, sales, distribution, etc. This morning, I met people from the French Post. I told them that I do not understand – with the Internet, they are seated on a goldmine. I then asked them why they continue to do nothing. Someone looked at me, and I told them that they are the only distribution network in France that we can access. If I buy a stamp, I have a transport contract. I can distribute everything – not anything of course, not cranes – and I don't have to move! What they did was to give to everybody a free email address laposte.net, but..."

We can contrast our results by means of the following table:



	CASE A	CASE B	CASE C
<b>Nature of the socio-discursive infrastructure that is linked to the constitution of IT discourses</b>	Actors and inter personal network are central. An interpersonal network produced and reinforced by interpersonal links (we do business through recurrent meetings); direct contacts with objects and customers are essential.	Both actors and objects contribute to build an image of idealized supply chain processes. “This is a TS on which we do not to business anymore, we are building representations, our business is to create images for visitors” (SED Logistique, p. 5). A socio-discursive network made-up of actors and objects in situations of co-presence. Electronic social networks can reproduce (and reinforce), complete or transform this socio-discursive network. The entire set is relatively constrained by real phenomena (concrete logistical processes).	Objects and technology are everywhere – actors stand backward and contribute to diffuse IT gadgets with hostesses – to create the image of a futuristic and idealized world A very broad network, mainly socio-discursive. At times, the set is lightly weighed down by real phenomena, while at other times not at all (cf. the so-called period of the “Internet bubble”). Actors, objects and discourses are virtualized.
<b>Implications for organizers of TS, managers of forums seeking centrality for the organizing vision.</b>	The place of support where technology is shown and discussed both need to be ready for materialization through space, control at the entrance, technical possibilities, simulation, etc.	The manager of forums needs to jointly manage actors, discourses and objects.	The management of words, the push and the follow up of buzzwords is more essential in this sectorial context. Billboards, posters, and animations are all very didactic and pedagogic.
<b>Mechanism of management for technological reputation.</b>	E-reputation and physical reputations of technologies are two distinct things.	E-reputation and physical reputation of technologies are two distinct things, but are interdependent for buyers and strategic scanners.	Reputations and e-reputation are inseparable.
<b>Macro image of the TS</b>	Machines	Processes	Virtualization “mixed reality”

• **Table 9: Nature of socio-discursive infrastructures linked to TS A, B and C**

Essentially, when one moves from the machine tool industry (A) to the logistics industry (B), he/she moves towards an infrastructure which links discourses, *objects* and actors differently. One leaves a universe where materiality is that of its application field (via machines, gearings and spare parts) to moves towards an area where *activities* and *processes* need to embody (via more or less idealized representations) technology and its functioning.

When leaving the logistics industry (a functional area within TS B) in order to go to TS C (which corresponds with a soaring activity and focuses on IT as a developmental support), one leaves a technology that is embodied in and around *processes* for a technology that

discourses will make abstract via integrative business concepts (in particular “*business models*”). Speech acts (written or spoken) will nonetheless attempt to visualize and materialize (in their demonstrations) the economic and strategic effects of IT.

#### **4. Discussion: contributions, limitations and avenues for further research**

In continuation to Muniesa and Callon’s (2009) work on the typology of performativity-related artifacts, the performativity that appeared at the inter-organizational level in the trade shows A, B and C seems to be more experimental than theoretical in nature (i.e. “linked to design contexts in which the situation starts from problems and problematic situations in order to elaborate progressively models, measures and economics instruments” (Ibid: 3001)), more material than psychogeneous (most demos and communications relied on the use of “a set of techniques and tools that drove and implied a way of doing things”), both planned (by TS organizers and their central discourse) and distributed (by the various industry stakeholders, in particular IT publishers), and more generalized than restricted (the production of performative discourses about IT relied on a vast, open socio-discursive network in all three TS).

Our fieldwork offers two key theoretical contributions (about the importance of industrial contexts) and one methodological contribution (for the exploration of inter-organizational Performativity). Each TS must anticipate actors’ right agency of actors, as well as the discourses and materials that are used to create the felicity conditions of performativity.

Firstly (theoretical contribution 1), all actors are made aware of the specificity of the industry, as well as of the fact that businesses have a relationship with the discourses and the concepts of materiality that are specific to each respective industry and area of business (this is one of the key ideas that comes as a result of the research about performativity<sup>7</sup>). Illocution and perlocution (see Austin, 1962), as well as their grounding in the materiality of everyday, “ordinary” objects (as described in this inter-organizational research), appear to be highly industry-specific. Subsequently, the performativity of IT discourse is grounded in one (or more) of three (industry-related) elements: (i) material artifacts (industry-specific artifacts), (ii) concrete activities and processes, and (iii) integrative business concepts.

In the industries in which discourse is continuously materialized and rematerialized, we can observe that objects such as a metallic spare part or a machine can embody processes and activities or become idealized through managerial concepts (e.g. “business models” or other mechanisms likely to convince customers), as well as through IT.

The analysis of the socio material infrastructures of IT that we develop here converges with the results coming from authors in the field of economical sociology (Aspers and Darr, 2011). As these authors state: “Trade shows for innovative products are important venues at which markets coalesce. The identification and ordering of market actors, the institutionalization of a distinct business culture and the social networks developed among market actors and across

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<sup>7</sup> This is very consistent with other research results from Chiasson and Davidson (2005).

the subsidiary markets provided the basic social infrastructure for what later became known as the real time computing industry” (page 758).

In the case of TS A, IT discourses were materialized and took on a convincing material shape in order to be percolative (e.g. the robots at the trade show’s entrance physically demonstrated their abilities (scoring goals)). IT fashions need to be materially grounded, as one is not compelled to trust incantatory discourses that are not immediately visible. Perhaps here more than elsewhere, the work of technological scanning requires major fieldwork if it is to enter into physical social networks and understand IT fashions, e.g. via lunches, dinners, informal discussions.

In the case of TS B, IT discourses were focused and materialized through activities and processes. The visualization of present or future potential largely implied a follow-up of processes and activities; technology and its performance are inseparable from these elements. Here, performance takes on a more idealized dimension, even if it can be discursively embodied through representations such as numerous graphical elements or drawings representing the performance of logistical flows. The socio-discursive infrastructure behind these TS and behind the industry as a whole is not seen here as being heavily influenced by strong interpersonal networks or by technological materiality. A strategic scanning would therefore be advantageous in this context. Following the exchanges of electronic social networks and forums can reveal a number of implications about the frequency and evolution of buzzwords (in case A, following this was not relevant due to the flow of exchanges being very low). Moreover, the e-reputation of a technology can be complementary or distinct from a company’s overall reputation as it might appear through the lens of a trade show (e.g. attending a conference), but it still is in any case very interesting. In contrast, for IT publishers in TS B, a legitimate presence in these spaces was more important than in TS A.

For TS C, we observed a stronger dematerialization of discourses and practices than we had in the previous cases. For example, (more or less versatile) buzzwords were very present. Furthermore, technology melted into a series of managerial concepts or business models: it did not lend itself to demonstrations on stands, but was employed as a way to strike visitors’ imaginations (a point which surprised us in the majority of leaflets and journals that we collected); the potential customer is likely to be convinced (or not convinced) through discussions about the potential economic and managerial effects of IT. Discourses can largely autonomize themselves from the materiality of technology and their areas of application. Thus, it struck us that there was no mention of specific areas or applications among the leaflets. The social networks related to the e-commerce industry appear to be vast (as shown by the catalogue, this industry includes an immense spectrum of business activities, firm sizes); social ties are weak in this limited space, and tools such as electronic social networks are therefore very important. E-reputation (of actors and technologies) was probably more important in TS C than it was for TS A and B, as in this case it can be conflated with reputation.<sup>8</sup> It follows that people in charge of technological scanning can focus specifically on electronic scanning, both because emerging OV’s are buzzwords (or likely to be turned into buzzwords) and because IT fashions are heavily discussed in electronic spaces, which makes meetings between stakeholders more frequent.

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<sup>8</sup> In cases A and B, e-reputation appears as an aspect or a determinant of reputation.



Secondly (theoretical contribution 2), our case narratives emphasize the role of a broad sociodiscursive networks in the elaboration of IT performativity. In essence, a broad network of individuals reflexively and competitively elaborate the “felicity conditions” of IT related discourses. TS organizers, IT publishers, journalists, users’ club, academics, social medias, and other actors/entities discuss IT and make sense of it (Swanson and Ramiller, 1997); they create the imaginary world which makes some the evocation of certain technical concepts or IT related slogans seem frightening, convincing, legitimating, differentiating, blurring, etc., and more generally, *performative*. More and more, it appears that the felicity conditions of IT-related discourses are elaborated beyond IT publishers and IT managers; in fact, a broad community takes part in the process, in the context of an interorganizational network which we consider to be a sociodiscursive network.

Our three case narratives emphasize the role of an “ambient performativity” that brings about the felicity conditions. Most of the performativity-related discussions that we observed rely on an institutionalization of felicity conditions. For instance, a mayor needs to be elected to pronounce a marriage as being official. He/she also needs an institutional and a specific physical and material context (town hall, church, etc.). The source of the institutionalization (the State, a parliament, etc.) can be clearly identified, and defines the condition of felicity quite deliberately and unilaterally.

In contrast, we suggest that the performativity conditions of IT (as they appear in the TS we observed) are partly institutionalized (for instance, when the TS organizer suggests a 12-step plan for visiting the TS, or through the key messages that IT companies wish to diffuse from their stalls) and partly emerging. Discourses and materiality are then organized in a more open, informal, and emergent way, namely through and in trade shows. Both constitute what we call an “ambient performativity”: the actors defining the felicity conditions are more evanescent and vague than are the conditions required for the pronouncement of a marriage, both for competitive (making their position unstable) and legal (not wanting to appear as ‘market makers’) reasons.

Our work (methodological contribution) also shows that TS (which appear as a relatively under-explored research objects in management and organization studies) are both a place and time in which the network that amplifies the felicity conditions of IT-related discourses is made visible. During a TS (but also before and after), TS organizers, IT publishers, and other actors attempt to gather as many stakeholders as possible into the places where “everything is happening”. They elaborate a framework for IT-related discourses (what should be said) and material artifacts that freeze discourse (VIP rooms, articles, flyers, electronic social discourses, etc.), which themselves also become part of the felicity conditions.

This study has also several limitations.

Firstly, it is exploratory in that it represents a first attempt to examine the way IT performativity occurs at the inter-organizational level. Additional investigations would be useful in extending our conclusions about the three modalities of IT performativity and to extend the concept of ambient performativity.

Secondly, our focus on trade show can be questioned. Are TS really a time and space where IT and IT performativity have visibility? The variety of IT stakeholders (customers, publishers, consultants, journalists, etc.) and processes (information, purchase,

communication, etc.) that the IT trade hosts seem to back our intuition. Nonetheless, many of the aspects that are at stake in the performativity of IT (e.g. those related to the implementation phase) had only a partial visibility during the TS. In addition, we assume that there is a certain equivalence between TS visitors and participants (i.e. we see the relationship between organizations' representatives to be the inter-organizational relationships we want to investigate). Of course, this view can be particularly questioned when one considers big companies in which CIOs, CEOs, journalists, etc. are part of large organizational entities that involve complex decision-making processes.

Lastly, we can identify a final limitation that is related to the material setting of IT trade shows, which make them difficult to investigate. Some of our interviews had to be cut short due to the busy, open and noisy environment of INDTS. This sometimes resulted in discontinuous research material (we had to stop and resume some interviews due to the presence of customers or prospective customers at the stands).

In continuation to the aforementioned contributions and avenues for further research, we see two key avenues for further research.

Firstly, it would be interesting to explore different TS (or other forums such as business show rooms or scientific conferences) related to other industries (pharmacy, cosmetic, packaging, etc.) in order to test and refine the grounding elements of performativity that we have identified here (industry-specific artifacts, activities/processes, and integrative managerial concepts). The exploration of other sectors within an international context could also help to further contextualize the results.

Secondly, a cross investigation of IT fashions (or fashionable discourses about IT) and IT performativity could also be interesting. Which speech acts are strictly linked to fashionable IT phenomena (heard in stands, VIP spaces, conferences, etc.)? Is it always an issue involving "others"? Is this notion systematically pejorative? What are the emerging discourses that can be perceived explicitly as fashions (a label that is not necessarily good for the discourse's future) and which are not discussed as such (in spite of the objective features of a fashionable phenomenon)?

IT trade shows are a fascinating research object. Much like the fairs of the Middle Ages, trade shows produce or reproduce a wealth of ideas, discourses and artifacts. They are controlled spaces in which much more than a mere merchant activity is at stake: the reputation of each actor, the image of industry, and the fashionable products and services of the industry are at stake as well. Until now, little research has dealt with this particular object and the issues related to it, and it is now apparent that IT trade shows are a promising location for the investigation of IT-related speech acts and their relationships with materiality.

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## APPENDICES

### 1. CASE TS A (industry oriented)

Period: March 2009  
Town: Chassieu (close to Lyon, France)  
Researchers involved: four senior researchers

For case A, the economic crisis was still heavily present. In two major journals distributed at the entrance of the TS, cover titles were very explicit in this respect:

- The “Usine nouvelle” (Week of the 5<sup>th</sup> - 11<sup>th</sup>, March 2009) offered a special issue entitled: “How can we restart the engine?”. It displayed the picture of a big gear being greased by oil. On one of the sub-titles, a more pessimistic tone appeared: “Predicted record recession for Germany.”
- The journal “La revue Industries et technologies” (March 2009) also emphasized the crisis, but with a more constructive tone: “Producing more quickly, cheaply and in a cleaner way”.

Robots were at the core of many communications. A leaflet was distributed in view of the “Journées techniques du CETIM” at Senlis (28<sup>th</sup> Avril 2009). The general topic of the event was “Robots in small and medium-sized firms”.

The “visitor’s guide” distributed at the entrance (and part of the package given by the organizer to each visitor) was discursively aligned with the aforementioned messages, as it suggested that one “anticipate the recovery” (assuming implicitly that the crisis has still in effect). The opening discourse of the document aimed at reassuring people: “During 4 days, around 1000 exhibitors wait for you with hundreds of innovations. They trust the future and are going to explain to you how to improve your productivity in order to be more resistant. You can take this opportunity in order to discover new outlets. Please consult our program and book the day of your visit. [“Preparing for tomorrow’s investments today!”] Tomorrow’s investment new to be prepared today!”

Most documents distributed or displayed at the TS had metallic elements on their covers or in main sections (even the software-oriented leaflets). Even the general catalogue distributed at the entrance carried a metallic flower on the upper-right corner of its cover.

#### 1.1 Semi-structured interviews



15 semi-structured interviews were carried out between J1 and J4 with the following people:

N°	Position	Duration and period	Comments: - Motivations for coming to the trade show - Perceptions of IT fads and fashions
A[1]	Exhibitor	10'43 Day 2	The company came to the trade show mainly to be visible and informally meet customers. They are relatively disappointed with INDTS and they consider that the Internet will be a better channel in the future to reach customers.
A[2]	Exhibitor	7'30	The company came to the trade show mainly to be visible and informally meet customers. They are relatively disappointed with INDTS as a few visitors have real projects to discuss and stand fees are too high.
A[3]	Exhibitor	5'50 Day 2	The company participated to INDTS to be visible and informally meet customers. The objective of the trade show is to learn about customers and prospects' projects.
A[4]	Exhibitor	20'05 Day 2	The company is relatively satisfied with INDTS because the trade show is a unique occasion to meet people that they would not meet elsewhere. They can also show and print the results of their 3D IT product.
A[5]	Exhibitor	24'07 Day 2	Fads and fashions don't really influence the IT market. In the case of a small IT supplier company positioned in a niche market, interpersonal relationships are the main factor. They chose a small stand mainly to be visible and informally meet their customers.
A[6]	Exhibitor	33'46 Day 2	The company came to the trade show mainly to be visible and informally meet customers. They chose a middle-size stand outside the perimeter dedicated to IT companies to be nearer to the mechanics and robotics customers. There are no IT fads and fashions in their IT market, which is very specialized.
A[7]	Exhibitor	60'06 Day 2	The company regularly participates in trade shows to boost their reputation and disoerseslogans from a large-size stand. The company recognized that there are IT fads and fashions in their IT market going from CAM, to CAPM and lastly CAD.
A[8]	Exhibitor	20' Day 1	The company came to the trade show only to be visible and informally meet customers. They chose a middle-size stand.
A[9]	Exhibitor	20' Day 2	The company regularly participates in trade shows to boost their reputation and advertise their IT products and services. They distinguished themselves with a user-friendly stand with a bar and free drinks and think trade shows are valuable for the company.
A[10]	Exhibitor	17'53 Day 4	The company came to the trade show mainly to be visible and informally meet customers. They are relatively disappointed with INDTS as few visitors have real projects to discuss and they pay too much for a stand. There are fads and fashions starting from CAM to more recently, CAD.
A[11]	Exhibitor	30' Day 4	This company chose a middle-size stand outside the perimeter dedicated to IT companies to be close to the mechanics and robotics customers. They are positioned on CAPM software in connection with ERPs.
A[12]	Exhibitor	17' Day 2	The company came to the trade show mainly to be visible and informally meet customers. They are relatively disappointed with INDTS because they had the impression that the number of visitors was largely decreasing. Trade shows remain interesting because they provide the opportunity to show IT software and machines. The company initially specialized in CAM, and now has moved into CAD/CAM.
A[13]	Exhibitor	13'30 Day 2	The company came to the trade show mainly to be visible and informally meet customers. There are fads and fashions in their CAM products and services.
A[14]	Organizer,	8' Day 2	The INDORG aims to link all the major actors of the mechanics and robotics industries. The trade show participates largely in the creation of OV's.
A[15]	Exhibitor	5'25 Day 4	The company came to the trade show mainly to be visible and informally meet customers. They are relatively disappointed with INDTS as a few visitors have real projects to discuss and they pay too much for a stand.

## 1.2 Internal and external documents

<b>Reviews and journals (titles)</b>
Industries and technologies 2008 n°906
Industries and technologies March 2009
Entreprensupplément Rhône Alpes Special journal on INDORG 2009
The catalogue of tool machine references To reduce the use of raw material
I automatise Special review
CBG Machining Number 2
Innovation N°20, 2009
The new industry, n°3137
Revue IAA (Food and agriculture industries), n°11, 2008.
The software solutions promoted by CETIM (Technical center for mechanical industries)
Polytechnique review
Entreprendre

<b>Leaflets - Key titles</b>
DassaultSystèmes The management of product life cycle at the heart of engineering and technician education in the 21st century For teaching excellence and the quality of job evolutions
Haas automation Europe Product Gamme 2007 2008
Document : A few examples of prices for Haas ' spare-parts
Alma "Think about the idea, build the solution"
Solid Edge "The CAD/CAM that goes further..."
Has automation Europe Tables rotatives et diviseurs
Plaquette IGE-XAO
Work NC V20 : news and improvements WorkNC the CAD/CAM solution Automatics from 2 to 5 axes
Axemble "To conceive your products, organize and share know-how."
3D Inspection solution, metrologic group
Leaflet Delcam : the CAM solution completes the hybrid CAM solution
AGEOS vision, the ERP that help the company to make progress

- Photos

<b>Description</b>	<b>Comments</b>
45 numeric pictures	Mainly pictures of stands, people walking around, and exhibitions at different times of the day.

- Miscellaneous

<b>Nature of document</b>
How to receive data on the INDORG 2010 trade show
Map of the INDORG trade show
Document : the technical days of the association CETIM Robots for SMFs
Official catalogue of the INDORG trade show
Participating contract in the trade show INDORG presentation document
Guide to visiting the trade show



## 2. CASE TS B (logistic and transport oriented)

Period: March 2012

Town: Villepinte (close to Paris, “Parc des expositions”)

Researchers involved: three senior researchers and a research assistant

For TS B, which was largely service-oriented,<sup>9</sup> it seemed as though the crisis had already been overcome, and that a better future was already on its way. Therefore, the crisis was absent as a keyword from our lexicometric analysis. Explicitly, an issue of the “Guide of Transport and Logistics, 2010” mentioned (page 268): “Logistic warehouses: a market which has suffered<sup>10</sup> from the crisis.” More specifically, it mentioned that the year of 2008 had been particularly difficult for the industry. In contrast to TS A, the macro-economic context of TS B was slightly different in this respect.

In the trade show’s journals and leaflets, we were struck not as much by the acronyms, but by the more abstract and dynamic images and diagrams that were represented. Even when an industrial object was visualized, it was rarely represented in a direct, brute way (e.g. the “Industrie et Technologies” issue from March 2010, whose cover page displayed an automated arm, represented in a very elegant and stylized manner). Other reviews and journals shed light on a moving, dynamic industry, largely oriented towards “tomorrow” (a highly-used buzzword that was overtly present in our data). A supply-chain journal from March 2010 (a special issue devoted to the TS<sup>11</sup>), similarly suggested the “reinvention of urban logistics.” E-commerce was also frequently mentioned. The March 2010 issue of “Talents” also printed an article (page 8) about the logistics of e-commerce.

TS B’s visitor’s guide displayed an interesting slogan (in English): “Linking the world of logistics”, with, in the background, a sky full of clouds. Russia was specifically honored by this particular TS (in France, 2010 was the “Year of Russia”).

Corporate leaflets commercializing IT products often graphically shed light on specific processes. This was namely the case with Omega’s leaflet<sup>12</sup>, which included a very visual process and the slogan: “On your side to guarantee exploitation of your bare-code based solutions”. At TS B, such representations were often more abstract than those offered by TS A. The leaflet distributed by Alpha (easyWMS) was the epitome of this: it displayed a red wheel, describing all the activities and elements of a WMS (tasks, tools, safety, control). The goal was to show “how to manage a warehouse in order to improve effectiveness.” IT-published “Zeta Logistic” mentioned “online logistics” and insisted on its “one-click based software” by using a picture detailing the elements of various industries and activities via a

<sup>9</sup> Our lexicometric analysis shows that the following were among the most cited words: trade show (40), article (30), shop (32), article (30) and package (16).

<sup>10</sup> Not “suffers” from the crisis.

<sup>11</sup> Many publications had a SITL special issue.

<sup>12</sup> All names used here for IT publishers are fantasy names.

computer keyboard. Another publisher (Omega bis) also used stylized hardware elements on its cover, such as circuits.

A document about the “premières assises de la RFID” (May10th, 2010, Bercy) displayed a staircase in a glass building.

- Semi-structured interviews

N°	Date	Duration
B1	2010.03.23	58'
B2	2010.03.23	15'
B3	2010.03.23	35'40
B4	2010.03.24	36'55
B5	2010.03.23	44'
B6	2010.03.24	33'58
B7	2010.03.24	8'27
B8	2010.03.24	1H08 +second part 8'09
B9	2010.03.24	23'43
B10	2010.03.24	18'16
B11	2010.03.24	1H14
B12	2010.03.26	51'16
B13	2010.03.26	17'06
B14	2010.03.26	50'48
B15	2009.12.09	60'29

## Conferences

N°	Title	Date	Duration
1	RFiD in the area of textile	2010.03.23, 14H-15H	60'03
2	RFiD for Internet-based objects	2010.03.24	56'17
3	RFiD Near Field Communication (NFC)	2010.03.24 11H20	36'37
4	RFiD – Value of information systems With IBM and TAGSYS	2010.03.26	1'04

## 2.2 Internal and external documents

<b>Reviews and journals (titles)</b>
RfID Block: German catalogue of companies using RfID, September 2010
L'usine nouvelle N°3184 – Week 18-24 march 2010 – Special issue “How to react to the crisis”
“Ville, rail et transports”, N°492, 24 March 2009
“Classe export”, N°187, March 2010
SITL Europe catalogue “Transport and logistics”, 6th edition, Reed Expositions, 23-26.03.2010
SITL Europe, “L’antenne – Les transports au quotidien”, 65 <sup>ième</sup> year, March 2010
“L’entreprise, la vie côté business”, N°287, March 2010
“Interfaces logistiques”, N°217, December-January
“Talents – The magazine that brings us closer”, Special issue on “The irresistible rise of e-commerce”, Journal of Norbert Dentressangle, N°13, Spring/Summer 2010
“Transportation and logistics 2030”, PriceWaterHouseCoopers, Vol 1, “How will supply chains evolve in an energy-constrained, low-carbon world”, March 2010
“Logistiques Magazine”, N°247, March 2010
“L’officiel des transporteurs”, N°2540, 5 <sup>th</sup> March 2010
“L’usine nouvelle”, N°3183, 11-17 March 2010
“La situation du transport de fret en 2009, premiers bilans”, 25th March 2010, Minister of ecology, energy and development.
“SITL Europe 2010 – Le prix de l’innovation”, 10th edition.
AFILOG “Objectiflogistique”, Information letter, N°17, March 2010

<b>Leaflets - Key titles</b>
Epsilon, the solution L4-logistics
Manhattan associates – Inventory optimisation
RF-IT solutions
CNRFID, National RfID Center
Checkpoint – Merchandise visibility solution
Detego – Plug and trace and suite module
Frequentiel: identification, traceability, mobility”
Traceability national center
Sage douane DELT@
GFI
Microsoft dynamics
SedLogistique supply chain solutions
Easy WMS – Warehouse Management System Software
“Generix group – Dossier de presse”, SITL 2010
PICDI RfID Innovation and integration,
INFFLUX, Dossier de presse, SITL 2010
SAVOYE, IT and systems for logistics, March 2010
TransportPlaza, connecting transport people, Stand G020.

- Pictures

<b>Description</b>	<b>Comments</b>
70 pictures 'on site'	<p>We had two objectives on mind :</p> <ol style="list-style-type: none"><li>1) To explore majors stands, and show their spatial setting, their choices with regards to boards, illustrations, decoration;</li><li>2) To identify IT-oriented stands, which displayed IT and RFID issues to attract visitors.</li></ol> <p>In contract to C TS, this trade show appeared has a high range TS (bigger stands, up to date decoration, people dressed up walking around, a lot of food and “petits fours”. There was also a lot of machines for demos.</p>

### 3. CASE TS C (e-commerce oriented)

Date: September 2010

Town: Paris, Porte de Versailles.

Researchers involved : Three senior researchers and a research assistant

TS C was quite different than TS A and B.

The general catalogue distributed at the entrance to visitors was largely transversal; it was “the directory of all practitioners of e-business in France, ranked by activities.” All firms involved more or less in e-business activities were targeted. As mentioned by the organizer of the TS, the catalogue aimed at “mapping the active e-business providers in France.”

The covers of the leaflets distributed by exhibitors at TC C were simpler than those at trade shows A and B. One leaflet showed a young woman making “@” symbols around herself: there were no specific references to a sector, tools, activities or processes. On the lower part of the leaflet, the following lines appeared: “web agency, Internet communication, website design, on-line videos, management of customer relations, 20 000 customers.” This was the only reference to the commercial performance of the firm – an indirect yet tangible sign of its capability. The inside of the leaflet mainly showed the packaging of products (including CD-ROMs), with a clear vocabulary about its objectives (booster, booster +, starter, player, etc.). It aimed at answering managerial expectations (from page 3: “improve the number of qualified entering calls, optimize your conversion rate, improve your acquisition costs, and develop innovation [...]”).

Another leaflet was even more zen and streamlined (drawing of two small characters without a face and with a bubble showing that they were talking together). The bestseller was “Zeta bis”, a “high tech software, devoted to natural dialog.” Inside its leaflet, numerous areas of application were presented, e.g. e-commerce, CRM communication, e-learning, e-leisure, and domestic robotics; however, very little information was given with regards to the technical features of the product.

Journals and reviews were also full of commercial discourses about technology. I-S (May-June 2010), for example, mentioned social networks, “real incubators of opportunities,”<sup>13</sup> and certain tools and methods that would enable firms to track their e-reputation. In a more B to B logic, the journal MagCartes (n°27) pointed out that the [“contact-free technologies skyrocket in Nice,” and that with regards safety, “PCI DSS projects are even cheaper.” Lastly, the magazine Logistic’s September 2010 issue was discursively related to e-commerce and the “stakes of logistics with one click.”

While our lexicometric analyses reveal few new technical terms, they highlight a number of more general managerial concepts, such as commerce (6), solution (5), and projects (2).

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<sup>13</sup> Social networks are presented as “an asset for SMF” (page 30).

- Semi-structured interviews

N°Interview	Period	Duration
1	22.09.2010	0H15
2	2010-09-22	0H28
3	2010-09-22	0H14
4	2010-09-22	0H12
5	2010-09-21	0H51
6	2010-09-21	0H57
7	2010-09-21	0H29
8	2010-09-21	0h22
9	2010-09-21	0h10
10	2010-09-21	0H17  0h02
11	2010-09-21	0H26
12	2010-09-21	0h55
13	2010-09-21	0H16

- Conferences

N° Conference	Title	Date	Duration
1	SalonECommerce_Conf�renceETailing_CARREFOUR_PROXYBUSINESS  ETailing conference with <b>CARREFOUR (French supermarket)</b>	2010-09-22	1H02
2	Conference_ETailing_DARTY_WORKIT  ETailing conference <b>DARTY STRATEGIC SCANNING, THE PRO WIDGET FOR SALESMEN AND BRANDS</b>	2010-09-22	0H48
3	Conference_Augmented reality	2010-09-22	17H39
4	Conf�rence with Priceminister  Secure your on line transactions	2010-09-22	41H34
5	DIALONICS, Head of commercial department	2010-09-22	15H31

6	PIXMANIA, CIO	2010-09-21	0H09
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### Reviews and journals (titles)

<p>«Transports internationaux et logistique», Special issue on The logistics of e-commerce », N°75, September 2010.</p>
<p>« Le journal de la logistique », N°78, September 2010</p>
<p>« Marketing direct » septembre 2010</p>
<p>« E commerce et distribution : comment Internet bouscule les canaux de vente » Acseptembre 2009 (Book donné par un des auteurs sur un stand)</p>
<p>Vente à distance et E-commerce Avril – n°221 - juin 2010</p>
<p>L'officiel de la vente à distance et E-commerce 2010 Prestataires et Services</p>
<p>« E-commerce le magazine)24septembre – octobre 2010</p>
<p>« Annuaire du e-business », 18<sup>ème</sup> édition « L'annuaire de tous les acteurs du e-business en France classés par activités ». Une publication <a href="http://www.ebusiness.info">www.ebusiness.info</a> avec préface d'Alain Laidet (président du salon e-commerce). Diffusion en 300 000 exemplaires. Un extrait de l'édito : « Près de 300 pages, 30 000 exemplaires diffusés cette année, 3000 prestataires référencés dans cette édition dont 600 nouveaux intégrés tout au long de l'année : l'annuaire e-business se ré-invente tous les ans et reste, du moins l'espérons nous, un outil de travail précieux pour vous. Mais il va encore s'enrichir cette année, notamment dans sa version en ligne, avec de nouveaux services que vous découvrirez au second semestre. Les règles éditoriales resteront cependant identiques : l'annuaire du e-business vise à cartographier les prestataires du e-business actifs en France (éditeurs, intégrateurs, associations...). Le référencement des entreprises est gratuit. Il suffit à celles qui souhaitent y figurer de s'y inscrire en ligne sur <a href="http://www.ebusiness.info">www.ebusiness.info</a> ou de rafraîchir les informations si elles sont déjà inscrites. Et figurent dans cette version papier celles dont le référencement date de moins de 12 mois. Voilà les règles de fonctionnement rafraîchies ! » Alain Laidet</p>
<p>« CartesMag », n°27. Juin-juillet 2010. « Le sans contact décolle à Nice. Sécurité : Les projets PCI DSS encore plus chers. Nouvelle donne pour les cartes privatives de crédit.</p>
<p>Le Journal de la logistique. N°78. Septembre 2010. « E commerce la logistique @ votre service. Chariots élévateurs. Le service, nerfs de la guerre.</p>
<p>Talents, n°13 2010. « L'irrésistible ascension du e-commerce »</p>
<p>« Guide du visiteur ». E business events. Prestataires, intervenants et exposants. Dans la préface, Alain Laidet souligne qu'il s'agit « d'un rendez vous unique en France et en Europe ». Mentionne 500 experts dans 14 salles de conférences.</p>
<p>Le guide propose 21 parcours thématiques.</p>
<p>Marketing direct, n°140, septembre 2010. « Relations clients. Les marques explorent de nouvelles pistes »</p>
<p>Internet-solo, n°33, mai juin 2010. « Les réseaux sociaux, pépinières d'opportunités ». « Tous les conseils pour développer votre activité. E-réputation. Faites vous connaître sur le web. Quelles sont les méthodes ? E-commerce. La saga des succès du e-commerce.</p>

### Leaflets - Key titles

<p>Sarbacanel'emailing tout simplement</p>
<p>Coremetrics (an IBM company) « Participez à un sondage sur les réseaux sociaux et tentez votre chance pour gagner un ipad ». « rendez visite à Coremetrics au stand F10, hall 7.3 (...).</p>
<p>Linkeo.com Web agency. Stand D1 pour retrouver nos conseillers.</p>
<p>IMB Boutique. E-commerce open source. Nous créons votre boutique en ligne.</p>
<p>Le nouvel e-bay pour les professionnels.</p>
<p>Plaque e-bay. Lancez votre activité sur e-bay. Questions et réponses.</p>
<p>Dialonics. Advanced natural dialog software. Interfaces dialogantes. Adoptez aujourd'hui la solution de demain. Avec mention d'un extrait d'un rapport du Gartner group : « Selon Gartner, l'interface homme-machine naturelle non tactile est l'un des 7 défis pour l'informatique de demain » ITR Manager, 2008. NabuTalk. Logiciel high tech dédié au langage naturel.</p>
<p>Atopi. « Venez composer la suite sur notre stand et gagnez... du champagne et un week end pour deux dans un hôtel quatre étoiles ».</p>
<p>SipS. Atosworldline. « Reach your targets ». « Ajoutez du mobile à vos paiements ».</p>

Be so news. Cible Web. Plaquettecommerciale.
« Le web analytics par médiamétrie ». Estat. La référence de la mesure au service d'Internet.

- Pictures

Description	Comments
<p>69 pictures by research assistant</p> <p>26 pictures by senior researcher</p> <p>32 pictures of an adjacent TS (Equipmag) organized at the floor below, the same day) have also been done.</p>	<p>The idea : to give a flavour of stands' diversity, both with regards superficies, spatial setting within the TS and their content.</p>



#### 4. CODING OF LEAFLETS

**Coding scheme:**

**Nature of graphics:**

Figurative           Symbolic     Combined

**Presence of artifacts related to the industry:**

Yes  No

**Type of objects represented:**

Material artifacts  Processes/activities  Stylicized managerial shapes  Others

**Human presence on the picture**

Yes  No

**Representation of the software or a part of the software**

Yes  No

**Orientation of the text**

General slogan  Evocation of a technical concept  General evocation of the product  Other